

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number
WO 2005/009078 A1

(51) International Patent Classification⁷: **H04S 1/00, S/00**

(21) International Application Number:
PCT/SI2004/001138

(22) International Filing Date: **16 July 2004 (16.07.2004)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
0302110-2 21 July 2003 (21.07.2003) SE

(71) Applicant (for all designated States except US): **EM-BRACING SOUND EXPERIENCE AB [SE/SE]; Industrivägen 14, S-171 48 Solna (SE).**

(72) Inventor; and

(75) Inventor/Applicant (for US only): **GUNNARSSON, Fredrik [SE/SE]; Visättravägen 43, V, S-141 50 Huddinge (SE).**

(74) Agent: **EHRNER & DELMAR PATENTBYRÅ AB; P.O. Box 10316, S-100 55 Stockholm (SE).**

(81) Designated States (unless otherwise indicated, for every kind of national protection available): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CI, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, IU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PI, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**

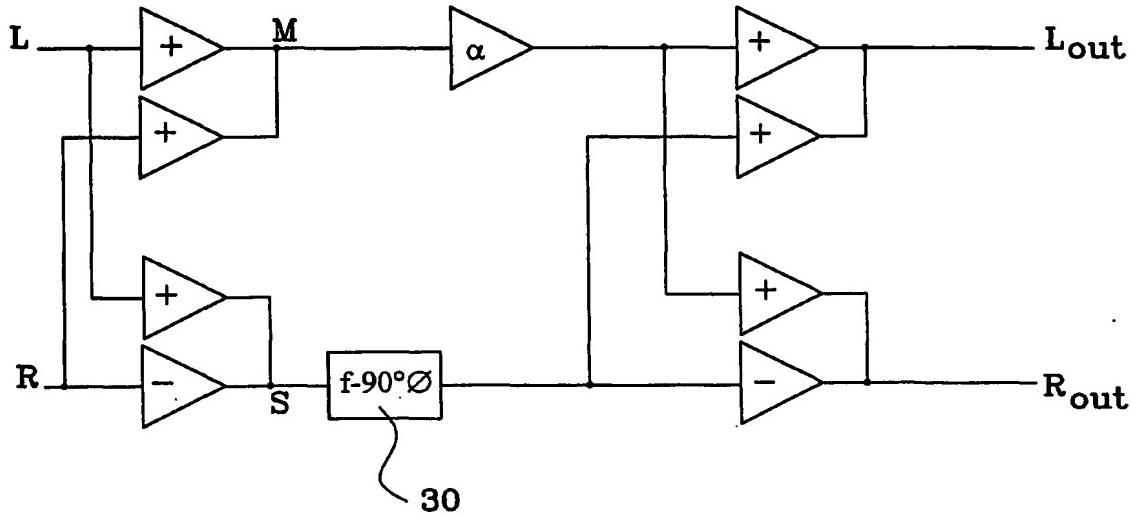
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): **ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **AN AUDIO STEREO PROCESSING METHOD, DEVICE AND SYSTEM**



(57) Abstract: The present invention relates to a method and a device for processing and reproducing an audio stereo signal. The method produces a left output signal for transmission to a left loudspeaker in a loudspeaker pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side input signal (S), the method further producing a right output signal for transmission to a right loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side signal (S) phase shifted 180°. The method further being characterised in that at least part of the side input signal (S) or the mid input signal (M) is phase shifted approximately 45°-135° relative to the other signal prior to or at the production of the left and right output signals. The invention further relates to such an audio stereo signal reproduction system.